DOCUMENT RESUME

ED 157 945 TM 007 494

TITLE	Massachusetts Educational Assessment Program. School Climate Handbook 1976-1977.
INSTITUTION	Massachusetts State Dept. of Education, Boston.
PUB DATE	[77]
NOTE	47p.; For related documents, see TM 007 329, 330, and 331
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	*Educational Assessment; *Educational Environment; *Evaluation Methods; High Schools; Norms; *Questionnaires; Rating Scales; School Environment; *School Improvement; *School Surveys; Scoring; Secondary Education; State Surveys
IDENTIFIERS	*Massachusetts; Test Manuals

ABSTRACT

School climate is defined as feelings and opinions about various aspects of a school with respect to 13 variables in the three domains of personal relationships, personal development, and effective organization. This handbook describes the application of a school climate questionnaire in a series of nine steps, as follows: (1) take the initiative; (2) form a representative school climate team; (3) develop a team work plan; (4) select study purposes; (5) administer and score questionnaires; (6) analyze and interpret results; (7) develop a school climate improvement plan; (8) implement the school climate improvement plan; and (9) evaluate the impact on school climate. The time and resources required and the risks involved in implementing the plan are discussed. Suggestions are given for carrying out each of the nine steps. Scoring instructions are included, as well as norms for students and for teachers from the original survey of high school climate in Massachusetts. (Author/CTM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

TM

SCHOOL CLIMATE HANDBOOK 1976—1977

MASSACHUSETTS EDUCATIONAL ASSESSMENT PROGRAM

ED157945

TM007 494

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. DeVito

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Massachusetts Department of Education

MASSACHUSETTS BOARD OF EDUCATION

Mr. Charles F. Grigsby, Chairman
Mrs. Anne H. McHugh, Vice Chairman

Mrs. Mary Barros
Mr. John W. Bond
Ms. Julie Donahue
Mr. James L. Green
Mr. Howard A. Greis
Mrs. Mary Ann Hardenbergh
Mr. Joseph Mello, Jr.
Mrs. Evelyn Morash
Mr. Edward E. Phillips

Leroy Keith, Jr., Chancellor, Board of Higher Education

Gregory R. Anrig
Commissioner of Education

Bureau of Research & Assessment
Allan S. Hartman
Les May
Matt Towle

APPLICATION OF ASSESSMENT FINDINGS

The findings of the 1976-77 statewide assessment have, as do previous assessments, implications for educators and non-educators at both local and state levels. The first need, however, is to bring these findings to the attention of those most concerned, involved and interested. This is being done in three ways:

1) mass distribution of assessment publications to all school districts and departmental regional centers.

2) publicizing of information about the assessment findings through normal media channels.

3) holding of dissemination meetings at each of the Department's six regional centers during the fall of 1977.

Following this, the Bureau of Research and Assessment, in conjunction with the Department's regional centers, plan to assist schools and other groups:

- in using state developed assessment instruments
- in analyzing and interpreting the results of assessment
- in adapting the procedures and test exercises of the National Assessment of Educational Progress (NAEP) to their own situations

Further information on the above, as well as other matters concerned with statewide assessment activities, can be obtained by contacting members of the Bureau of Research and Assessment (727-8497) or the regional center assessment coordinators listed on the next page.

REGIONAL EDUCATION CENTER ASSESSMENT COORDINATORS

Mr. Peter Coffin
Northeast Regional Center
1551 Osgood Street
North Andover, MA 01845
(617/687-3551)

Ms. Athena Costopoulas
Greater Boston Regional Center
54 Rindge Avenue Extension
Cambridge, MA 02140
(617/547-7472)

Ms. Priscilla Douglas
Springfield Regional Center
2083 Roosevelt Avenue
Springfield, MA 01104
(413/734-2167)

Ms. Catherine Farquhar
Center Mass. Regional Center
Beaman Street -- Route 40
West Boylston, MA 01583
(617/835-6267)

Mr. Paul Francis
Southeast Regional Center
P.O. Box 29
Middleboro, MA 02346
(617/947-3240)

Ms. Winifred Green
Pittsfield Regional Center
188 South Street
Pittsfield, MA 01201
(413/499-0745)

FOREWORD

Since 1974-75, the Statewide Educational Assessment Program has provided Massachusetts citizens with useful information about the quality of education in Massachusetts. The results of the assessment program, to date, have indicated to educators, parents, students, public officials and employers statewide patterns of performance in a number of areas including reading, mathematics, writing and citizenship/social studies.

This handbook describes the ways the results of the School Climate Study, reported on in another volume, may be applied in Massachusetts high schools. It is intended for those interested in studying and improving the learning climate in high school. As such, it is focused primarily on a detailed description of how this may be accomplished.

The handbook, which is an outgrowth of the Statewide Assessment Program, reflects the goals and objectives which the citizens of the Commonwealth consider relevant to Massachusetts public education. I am pleased, therefore, to present it for review, comment and use by all interested citizens.

Charles Grigsby
Chairperson
Massachusetts Board of Education

TABLE OF CONTENTS

		Page
BACKGROUND		1
I.	INTRODUCTION	5
II.	REQUIREMENTS, TIMING, LIMITATIONS	7
III.	NINE STEPS IN STUDYING AND IMPROVING SCHOOL CLIMATE	9
APPENDIX A:	Negatively Stated Items for Reversed Polarization when Scoring	35
APPENDIX B:	Item-to-Variable Assignments for the Student and Teacher Questionnaie	36
APPENDIX C:	Mean and Standard Deviation Values from 1976-7 School Climate Study for Use in Normalizing Individual School Ratings	37

Figures

Figure 1:	Example of Reversed Polarity	19
Figure 2:	Sample Profile of School Climate for Students, Rated by Students	23
Figure 3:	Sample Profile of School Climate for Students, Rated by Students and Teachers	24

BACKGROUND

HISTORY

In 1971, the Massachusetts Board of Education issued "The Results Approach to Education and Educational Imperatives," outlining fourteen priorities for Department of Education attention. The first three priorities of the document are: Define the educational results expected (goals); Measure the educational results achieved (design for assessment); Establish result-oriented educational standards tied to goals.

In 1972, in response to the first priority, and through an effort involving citizens throughout the State, the Board of Education published "Educational Goals for Massachusetts." This document described the ten broad goals to which the educational system of the State should aspire.

In July, 1973, in response to the second priority, the Board of Education approved the development of the statewide educational assessment program. Six regional assessment advisory committees, composed of teachers, educational administrators, employers, public officials, parents and students, were established to design the educational assessment program. Since one of the major goals of the assessment program is to provide information about the quality of education on a statewide basis, the committees decided that a sample of students could be used to measure patterns of achievement.

During 1974-75, The Massachusetts Department of Education implemented the first phase of the statewide assessment program. The first phase addressed three of the state's ten educational goals -- basic communication skills, effective uses of knowledge, and occupational competence. Performance information from samples of students throughout the Commonwealth was collected in reading, mathematics and decision-making for nine and seventeen year olds, and occupational

knowledge and occupational attitudes for seventeen year olds only. In addition, a sample of citizens throughout the state were surveyed to determine their attitudes toward education and their evaluation of the Massachusetts educational goals.

During 1975-76, the Department of Education conducted the second phase of the assessment program. This phase dealt with six of the ten state educational goals -- basic communication skills, effective use of knowledge, individual values and attitudes, respect for the community of man, citizenship in a democratic society, and understanding of the environment. Performance information from samples of students throughout the Commonwealth was collected in writing, citizenship and social studies. A separate study was also made of foreign language performance among secondary school students with different lengths of exposure to instruction in French and Spanish.

In the Spring of 1976, the Statewide Assessment Advisory Committee was asked to recommend the areas to be examined in the third phase of the program. On the basis of the committee's suggestions to the State Board of Education, the 1976-77 assessment effort dealt with four of the ten state educational goals -- basic communication skills, effective uses of knowledge and understanding the environment.

In order to measure these goals, a sample of 8,000 nine and seventeen year old students throughout the state were assessed in Science, Ecology and Consumer Education. These assessments were conducted by Testing and Evaluation Services Company (TESCO) of New City, New York under contract with the Bureau of Research and Assessment. Two additional studies were made during 1976-77. One was an examination of the climate in a sample of high schools, and the other was an

exploration of the use of non-traditional assessment techniques such as group discussion and simulated performance. These studies were conducted for the Bureau of Research and Assessment by Training, Development and Research, Inc. (TDR), of Newton, Massachusetts.

PURPOSE

The overall purpose of the assessment program is to gather information that will indicate how well the Commonwealth's educational system is meeting its goals. It is not the purpose of the assessment to determine how well individual students, schools, or school districts perform. Accordingly, all components of the assessment program have been conducted on a random sample of students from all over the state. In any one school, and in many districts, a maximum of twenty students have been tested in any one subject. The data in these reports come from only one year of testing and can be useful as base-line information, but the findings cannot be analyzed to show trends in the school systems of the Commonwealth. In addition, the reader should be aware that factors other than school programs influence performance. Knowledge, skills and attitudes are learned from parents, peers, and the media as well as from teachers.

Specifically, the assessment program serves four goals: first, to provide the general citizenry, students, parents, legislators, and educators with more accurate and useful information about the quality of education in Massachusetts; second, to provide state-level decision-makers with detailed information necessary to make better informed policy decisions and recommendations about state-wide educational activities; third, to provide citizens, school committees and school

administrators with information on patterns of performance as an aid in analyzing local educational conditions and in setting local objectives; fourth, to make available to school systems assessment procedures for use in developing and implementing local assessment programs.

This report is the second of two reports emanating from the School Climate Study undertaken as part of the third phase of the assessment program. The first report provided a definition of school climate, and reported on the results of assessing school climate in a random sample of Massachusetts high schols. That report, as well as this one, is available in the office of every school superintendent throughout the Commonwealth and also at the regional offices of the Department of Education.

I. INTRODUCTION

This Handbook describes nine steps which members of a high school community can follow to study and improve their school climate. The handbook must be used in conjunction with its companion volume, the 1976-77 School Climate Study Report. The handbook and report have been mailed together to all public school principals and superintendents in the Commonwealth.

Both the handbook and the report were developed as part of the 1976-77 Massachusetts Assessment Program of the Massachusetts Department of Education, by TDR Associates, Inc. of Newton, Massachusetts. The report includes a definition of school climate -- the feelings and opinions that members of a school community have about their school and how it operates -- the questionnaires developed to measure school climate, and the results of a study of the climate in twenty-four randomly selected Massachusetts high schools. The questionnaires and results are not repeated in this handbook, although references to them are made in the handbook. Thus, the School Climate Study Report should be studied as a foundation to using this handbook.

The handbook is a guide for members of a high school community who are interested in studying and improving their school climate. It is quite detailed and complete in describing the mechanics of administering, scoring and analyzing the school climate questionnaire. It also provides some ideas for improving school climate, but without as much detail as a school might find necessary. School climate improvement will require considerable time, skill, and inventiveness of the school community members themselves.

The handbook is based in part on work in three of the twenty-four high schools that participated in the study during 1976-77. In each of these three schools, a small team made up of students, teachers and administrators studied and discussed the school climate results for their schools in three one-to-two hour sessions. Their activities give some insight into steps that will be necessary for school community members who wish to study and improve their own school climate. The handbook is also based on research and practice in the general area of planned change in schools.

Briefly stated, the nine steps for studying and improving school climate are:

1. Take the Initiative

   Someone in your school, whether student, teacher, administrator, school board member, or parent, must take the lead in initiating a study of school climate. If you want the study to have an impact, you will increase your chances of success by working through the existing representative groups in your school: the student and faculty associations, the administration, the school board, and the parents association.

2. Form a Representative School Climate Team

   Form an eight-to-twelve member team of student, teacher, and administrator representatives.

3. Develop a Team Work Plan

   A work plan for the school climate team will include tasks, responsibilities, and a timetable, which should be shared with the entire school community.

4. Select Study Purposes

   The school climate team should study the School Climate Report, and select among the goals and options described in this handbook.

5. Administer and Score Questionnaires

   The school climate questionnaires selected must be administered to school members, and scored according to procedures described in this handbook.

6. Analyze and Interpret Results

A school team can analyze its results singly, or in relation to the norms developed for the 1976-77 sample of twenty-four high schools. A school team can also follow-up on its questionnaire with interviews and observations regarding school climate.

7. Develop a School Climate Improvement Plan

Based on the results of the school climate study, goals and action steps can be formulated for the improvement of the climate of the high school.

8. Implement the School Climate Improvement Plan

Having ratified the plan with the existing representative groups, implement the plan according to pre-planned action steps.

9. Evaluate the Impact on School Climate

Progress in implementing the school climate improvement plan, and its impact in improving school climate, should be evaluated periodically.

During 1977-78, the Bureau of Research and Assessment will sponsor a School Climate Demonstration Project. In that project, several high schools in Massachusetts will be selected to receive assistance in proceeding through the nine steps described in this handbook. Information about this project can be obtained by contacting a regional educational staff member listed in this handbook.

II. REQUIREMENTS, TIMING, LIMITATIONS

A school climate team will probably have to devote at least two hours a week for two school years in order to have significant impact on the climate of a school. The team should have a budget of $500 to $1,000 for materials and data processing. In addition, at least one member should be skilled in data processing and statistical analysis, or the team should have access to such a person. Unless a school is willing to make these minimal investments, it is recommended that the school not initiate the process outlined in this handbook.

The time it takes a team to complete the nine steps in studying and improving school climate will vary from school to school, but most schools should plan on two years. During the first year, the team would study the climate of a school and develop an improvement plan (Steps One through Seven). The second year would be devoted to implementing and evaluating the plan (Steps Eight and Nine).

In addition to time ane resources required, there is risk. A school climate team may fail to accomplish its goals, or, worse, may bungle the job and antagonize the school community. Worse yet, the effort may serve to intensify intergroup or organizational tensions that may already exist in a school. The process described in this handbook is not a panacea -- no one can guarantee success in the sensitive area of school climate. Thus, the general "health" of the school should be carefully considered before initiating a study of the climate of your school.

Given a generally healthy school, and a committed and skilled team, school members should proceed with optimism, conditioned with a healthy respect of the risks. The handbook includes suggestions for overcoming the possible obstacles to success, based on current knowledge about the improvement of school climate.

III. NINE STEPS IN STUDYING AND IMPROVING SCHOOL CLIMATE

STEP 1: Take the Initiative

1. Why are you interested in the climate of your school?
2. Who else might be interested in studying the climate of your school? Why?
3. Discuss the potential advantages and disadvantages of studying the climate of your school.
4. Decide whether to advocate a study of the climate of your school, and whom to involve.

Someone must take the lead in initiating a study of school climate, and that person will have to find a large group of other people who are enthusiastic about the idea. Some members of a school community will welcome a look at the climate of their school -- others will consider it either inappropriate or unnecessary.

For example, if students and/or parents initiate a study of school climate, some teachers and administrators may feel that the advocates are out to find fault with them. Or, if administrators initiate the study, students may suspect that a whitewash is intended.

Any study of this sort may bring up positive and negative attitudes about the study itself. A typical form of resistance is to try to discredit the motives of the advocates of such a study. To deal with these factors effectively, advocates of a school climate study should take the following steps before attempting to initiate a study:

> Examine your own reasons for wanting a study of the climate of your school. If you are interested in using a climate survey to discredit another group in the school, or for any other negative reason, forget it. If you are genuinely interested in improving your school, find others who share your interests.

Discuss the potential advantages and disadvantages of studying the climate of your school with members of the school's established representative groups: the student and faculty associations, the administration, the school board, the parents association.

If you decide to propose a study of school climate, enlist the cooperation of the existing representative groups. The broader support for a school climate study, the more chance the study will have to overcome resistance, and to have a positive impact.

STEP 2: Form a School Climate Team

1. Form an eight-to-twelve member team, made up of student, teacher, and administrator representatives; and, perhaps, parents and other community members.
2. Recruit individuals with interest, time, skills, and fairmindedness.
3. Provide incentives for members of the school climate team.
4. Select a team leader.

Those who put together a school's climate team will have to be sensitive to the particular needs and customs of their school. But several criteria can help guide the decisions.

First, try to select a team that will represent the various formal groupings in the school -- students, teachers, administrators, and support staff such as custodians and cafeteria workers. In some schools, parents or community workers might be invited to join the team. Once you decide on the groups that should be represented, turn to the elected representatives of each group for help in choosing the persons who might best represent them. In some schools, the elected representatives of the student association may in reality represent only the college-bound group of students. Additional students might be chosen who will help widen the representativeness, and credibility of the team. The idea is to arrive at a team that will be broadly and genuinely representative of the whole school community.

Figuring out the numbers of representatives from each group to be on the team is also tricky. Again, depending on the customs of your school, you might want to make sure that students aren't out-numbered by adults. We also recommend that the size of the team be relatively small -- no more than twelve members.

Individuals who are interested in working on the school climate team should have time, possess analytic and problem-solving skills, and be known for being fair-minded. Prospective team members should expect that approximately two hours a week will be required for most of the school year. Unless one team member understands data processing and statistical analysis, the team should have access to such a person.

Team members will work harder at their tasks if incentives are provided by the school. For example, students could receive course credit; their work on the school climate could be recognized as equivalent to an elective course. Teachers could receive in-service credits, and teachers and students could have a description of their work written up as part of their experience record. In addition, team members should be given visibility and recognition in the school community for their work.

A team leader should be selected. This person will convene meetings, set agendas, serve as team spokesperson, and coordinate the team's work plan.

STEP 3: Develop a Team Work Plan

1. Develop a work plan for the team, with tasks, responsibilities, and a timetable written out.
2. Start informing the school community about the team's activities.

An effective team requires a plan and a division of labor. The steps presented in this handbook provide general guidance, but the team will need

to lay out its own list of specific tasks, to be done by certain team members within a timetable. As a start, make up a calendar for the school year; decide where you want to be by the end of school, and work backwards, writing in the dates by which major tasks should be accomplished. Then work out assignments and reporting procedures. The schedule of the team's meetings should be announced to the entire school. The meetings should be open; all members of the school community should be invited, and encouraged, to attend.

Make sure the work plan includes frequent "check-ins" with the larger school community. The ways of checking-in will vary widely from school to school. Some schools are small, close-knit, and teams will have an easy time getting the word out informally to everyone. In other, more impersonal schools, team members may find it necessary to be constantly reminding various groups about their activities. But, close-knit or impersonal, no school community will cooperate with the school climate team, and help it to achieve its goals, unless people know what is going on, and are happy with the team's progress.

One more important point about "checking-in." If the flow of information is all in one direction, from the team to the larger school community, the odds are that any plan will fail. The team must inform, but it must also <u>listen</u>, and listen carefully to what people are saying about its work, and about the climate of the school. The more it can open its deliberations to all, and the more it can make itself influenced by the people it represents, the greater its prospects for success will be.

STEP 4: Select Study Purposes

1. Develop a clear understanding of the purposes of the climate study in your school.
2. Select the level of analysis that will meet your purposes.
3. Choose an appropriate sample.

By studying the companion volume to this handbook, the School Climate Study Report, team members will become familiar with the four questionnaires for students, teachers, administrators, and support staff, and their use in the 1976-77 School Climate Study. With these questionnaires the team can focus on school climate as it affects students, on school climate as it affects teachers, or on school climate as it affects both students and teachers. And, these two purposes -- school climate for students, or school climate for teachers -- can be pursued at four levels of analysis shown below.

The descriptive level is to depict how members of the school community feel about various aspects of their school climate. For this purpose, students or teachers "describe" the school climate as it affects them by responding to certain questionnaire items -- student-focused items for students, teacher-focused items for teachers.

The comparative level includes description, but adds to it by allowing two kinds of comparisons. One type of comparison is to look at the level of agreement or disagreement between the feelings about school climate for students or teachers of two or more groups. For example, student, teacher, administrator or support staff perceptions of the school climate for students can be compared. Similarly, teacher and administrator perceptions of the

school climate for teachers can be compared. The other type of comparison that can be made is with the results from twenty-four high schools shown in The 1976-77 School Climate Study Report. Thus, a school can determine its relative standing with other schools in the Commonwealth.

The diagnostic level is to identify factors that contribute to a high or low-rated school climate. This is most thoroughly done by first administering questionnaires to describe and compare the climate of a school. Then, members of the school climate team would interview and observe members of the school community, looking for factors that might help explain the school climate ratings obtained through the questionnaires. For example, if a school were rated low on the level of CHALLENGE it presented to students, it might be determined through interviews and observations that a high daily absentee rate requires teachers to repeat much work for the absentees in class, leaving students who regularly attend somewhat bored. A solution might be to require absentees to make up their work outside of class time.

The relational level is to identify aspects of school climate that are related to the performance of students or teachers in the school. For example, student marks, test scores, absentee or dropout records could be related to their perceptions of school climate. This requires statistical, correlational analysis which might reveal that students with low marks or test scores, for example, perceive that they have few choices regarding courses, levels of challenge, or social opportunities. Such a correlation does not establish that low perceived options "causes" low achievement, or vice versa, but does suggest that they are somehow related. The nature of this relationship might be further revealed by interviewing and observing low-achieving students. Correlational analysis requires a high level of technical expertise, for which

your team will require qualified assistance.

In studying the school climate for students or teachers at these four levels of analysis, it is recommended that you use only the student and teacher questionnaires shown in the 1976-77 School Climate Study Report. Items 1-91 of the student questionnaire can be given as shown on pages 47-54 in the study report. Your team can, however, add to, subtract from, or modify the student characteristics information (items 110-118) to fit local considerations for the relational level of analysis. Items 1-91 of the student questionnaire can be given to teachers, administrators and support staff, as well as to students, with some modification in the instructions on the cover page to address the questionnaire to those groups. Items 1-91 of the teacher questionnaire (pages 58-65 in the study report) can be given to teachers and administrators. It is recommended that these items not be given to students or support staff, as it would be rare if these groups were informed enough to rate the school climate for teachers.

The remaining items on the student and teacher questionnaires, and all items on the administrator and support staff questionnaires (pages 69-79 in the study report), are designed to measure school climate at the domain and interaction levels (see pages 11-16 of the study report for an explanation of these levels). The results of the [illegible] school climate study were not informative at these levels, and people were [illegible]ally not interested in them. The student-and-teacher-focused items recommended for use here allow for analysis at the variable and item levels (see pages 11-16 of the study report); and, in contrast, people were very interested in them. This is the reasoning behind these recommendations.

You will have to decide on whether to administer the questionnaire to everyone in the school, or a sample of people chosen to be representative of everyone. The major considerations in deciding on whether to use a sample or the entire population are representativeness, cost, and school community relations. Sampling is cheaper in dollar costs, but could create misunderstandings or controversy if not explained properly. Those who are chosen might wonder "why me," and those who are not chosen might wonder "why not me." Others might question the representativeness of the sample, especially those who might be threatened by the results. We suggest that you choose a sample of students, and that teacher, administrator, and support staff questionnaires be given to the entire groups (considering their smaller numbers).

Students can be sampled in a variety of ways. In the 1976-77 school climate study, four or five intact English classes of juniors (80-100 students) were selected to give a range of ability groups, and because we thought that juniors would be more knowledgeable about, and invested in, the school. Your team can follow this sampling procedure, or you can select a sample to represent selected subgroups of students, such as freshmen, boys, high achievers, low achievers, or any such group.

Another way of selecting a sample is to assign every student a number, and to select a sample from a table of random numbers. This is a statistical sampling technique, and is complex enough that you must have the assistance of someone familiar with it. Such a person can determine the number of people required for your sample, especially if comparisons of subgroups are to be made.

STEP 5: Administer and Score Questionnaires

1. Administer and score questionnaires.
2. Insure the confidentiality of individual responses.

You will need to schedule a time and a place for the administration of the questionnaires, identify the people who will administer the questionnaires, and reproduce an adequate number of questionnaires. Administer the questionnaires in quiet rooms to groups of forty people. Don't give them to people to take away to complete. Members of the school climate team might be the most appropriate people to administer the questionnaire.

When administering questionnaires, get everyone seated and quiet, and tell them briefly again about the purpose of the study. Then, pass out the questionnaires and ask people not to start filling them out until you tell them to do so. Have a supply of pencils, and ask if anyone needs one. Ask the respondents to read the directions silently while you read them aloud. Ask if there are any questions. If none, ask them to begin, to complete all items, and to remain seated and quiet until you tell them that everyone is finished. Then collect the questionnaires, and thank the people for their cooperation.

If anyone asks your help during the session, simply tell them to respond according to their own interpretation of the items. You may receive some complaints about the questionnaires, such as that several items state the same idea in slightly different ways. You can explain that this is planned, as similar items are added together for reliability. Others may complain that particular items are inappropriate, irrelevant, or otherwise undesirable. Acknowledge their complaint by writing it down, and explain that all such comments will be considered by your team when they interpret the results.

Scoring of the completed questionnaires can be done by hand, or by data processing (key punching and computer). If your team has access to a key punch machine, a computer, and a person who is experienced in data processing and statistical analysis, data processing is much less time consuming. The scoring can be done by hand -- it just requires many person-hours of tedious work, easily subject to error. The steps shown below apply to both hand scoring and data processing.

1. Screen the questionnaires:

   Members of your team should inspect every page of every questionnaire. Questionnaires should be eliminated from the analysis that have greater than 10 per cent of the items left blank, or given multiple responses. Also eliminate questionnaires with "set response" -- where all or most items are given the same response, such as all 4's.

2. Reverse negative item polarities:

   Roughly 40 per cent of the questionnaire items are negative statements, such as:

   > "People in this school only look out for themselves."
   > (Item 40, student questionnaire)

   A "strongly agree" (number 4) response for this item would be an undesirable (low) rating of the school climate. In contrast, a "strongly agree" (number 4) response for a positively stated item such as " The students here have a lot of school spirit" (Item 27, student questionnaire) would be a desirable (high) rating of the school climate.

   To make all item responses additive to give variable scores, reverse the polarities of all the negatively stated items that you used (Appendix A identifies the negatively stated items). This is done very simply by reversing the number ratings given for the negatively stated items.

FIGURE 1: Example of Reversed Polarity

Item: "People in this school only look out for themselves."

Actual Questionnaire Response	Strongly Disagree	Disagree	Agree	Strongly Agree
	1	2	3	4
Reversed Polarity	4	3	2	1

Thus, for all negatively stated items:

4 = 1
3 = 2
2 = 3
1 = 4

In this way, a reversed rating of 1 (low rating) for a negatively stated item can be added to a rating of 4 (high rating) for a positively stated item to give a 5 for the two items combined, or an average rating of 2.5 (5 divided by 2 items).

If you reverse the polarities by hand, mark the reversed number (1-4) in the right margin next to the negative items. If done by data processing, have the actual questionnaire responses key punched. A computer program can be written to reverse the polarities on the negatively stated items used.

3. Add item ratings to form variable scores:

You will recall from reading the 1976-77 School Climate Study Report that seven items from the questionnaires are used to form each of the thirteen variables that comprise school climate (pages 11-14). Your next task is to add the ratings for the seven items that make up each variable. The item-to-variable assignments for the student and teacher questionnaires are listed in Appendix B.

For each completed questionnaire, add the ratings given to each item assigned to a variable (be sure you are adding the rating given for positive items, and the reversed rating for negative items). For example:

COMMUNITY	Item	Rating Given	Add	
(for student	1	2	2	
questionnaire)	5	3	3	
	27	1	1	
	-40	3	2	(reversed)
	53	4	4	
	66	4	4	
	-78	1	4	(reversed)
		Total Rating for Community:	20	

Next, add all the individual questionnaire ratings for each variable, and divide by the number of questionnaires. For example:

$$\frac{\text{Sum of individual questionnaire ratings for community}}{\text{Number of individual questionnaires}} = \frac{1856}{100} = 18.56$$

Thus, in this example, the school rating for community as it affects students is 18.56. You must calculate a similar school rating for all **thirteen** variables--separately for the student and teacher questionnaires.

4. Convert your school's ratings to normalized scores:

This step is necessary for interpreting your school's climate ratings. The instructions for this step are described on pages 102-103 of The 1976-77 School Climate Study Report. In summary, you take your school's rating for each variable derived in the preceding step, and put it into the formula:

$$z = \frac{x \text{ (your school's rating)} - \text{mean}}{\text{standard deviation}}$$

The mean and standard deviation values to be used for each variable are listed in Appendix C. They derive from the 1976-77 School Climate Study Report. NOTE: It is extremely important that you use the right values in this formula. If you are working with the variable COMMUNITY regarding student-focused items, for example, the mean and standard deviation used must be for COMMUNITY regarding student-focused items also. If you are working with COMMUNITY regarding teacher-focused items,

you must use the mean and standard deviation given for COMMUNITY regarding teacher-focused items. These values are properly labeled in Appendix C.

Let's take the example given above for a rating of 21.00 for COMMUNITY regarding school climate for students. The values in the formula would be:

$$z = \frac{(21.00) - 18.68 \text{ (from Appendix C)}}{1.00 \text{ (from Appendix C)}}$$

$$z = 2.32$$

Obtaining the z value is only half the step in calculating the normal score of a variable, however. The final step is to put the z value into the formula:

$$t \text{ (normal or standard score)} = z \times 10 + 50$$

$$t = 2.32 \times 10 + 50$$

$$t = 73.20$$

The resulting value of 73.20 is quite high. Remember, the normalized rating has a mean value of 50.00 and a standard deviation lf 10.00. Calculate the normalized ratings for all the variables in the same way, and plot these values graphically as shown in the next step.

NOTE:

Throughout the process of administering and analyzing questionnaires, to protect confidentiality, you must be sure that no one can match any person's name to his or her questionnaire. First, the person's name must not appear on the questionnaire. Second, completed questionnaires should only be handled by designated members of the team, and/or whoever is doing the key punching. Once they have been coded and tallied, questionnaires should be destroyed.

STEP 6: Analyze and Interpret Results

1. A school climate profile can be drawn to show graphically the survey results, (see pages 27-28 of the 1976-77 School Climate Study Report).

If your analysis is to be at the descriptive level, plot your normalized ratings of school climate for students or teachers on the normal graph shown in Figure 2 (page 23) for students. This shows the school climate "profile" for your school; the relative ratings given to each variable. The profile shown in Figure 2 reveals that COMMUNITY and EXPRESSIVENESS were rated highest, and CHALLENGE and OPTIONS were rated lowest.

For the comparative level of analysis, the ratings of two or more groups on the same questionnaire can be plotted, as shown in Figure 3 (page 24) for student and teacher ratings of the school climate for students. The resulting profile shows teachers agreeing with students on the relative ratings of COMMUNITY, EXPRESSIVENESS, and CHALLENGE, but disagreeing about the relative rating of OPTIONS. The teacher ratings are generally higher than the student ratings (see pages 29-32 of the School Climate Study Report), but their relative ratings of the variables shown in Figure 3 are quite similar to the student profile. A further comparison can be made regarding the student ratings by comparing them to the highest and lowest ratings of the 1976-77 School Climate Study sample (page 104, A, of the study report).

The results of the diagnostic level of analysis may or may not be conducive to graphical display, but can be summarized in narrative form as explanation, for the descriptive or comparative profile. For the relational level of analysis, the climate ratings of various types of students or teachers can be plotted in the same way as the ratings for different groups such as those shown in Figure 3 (page 24).

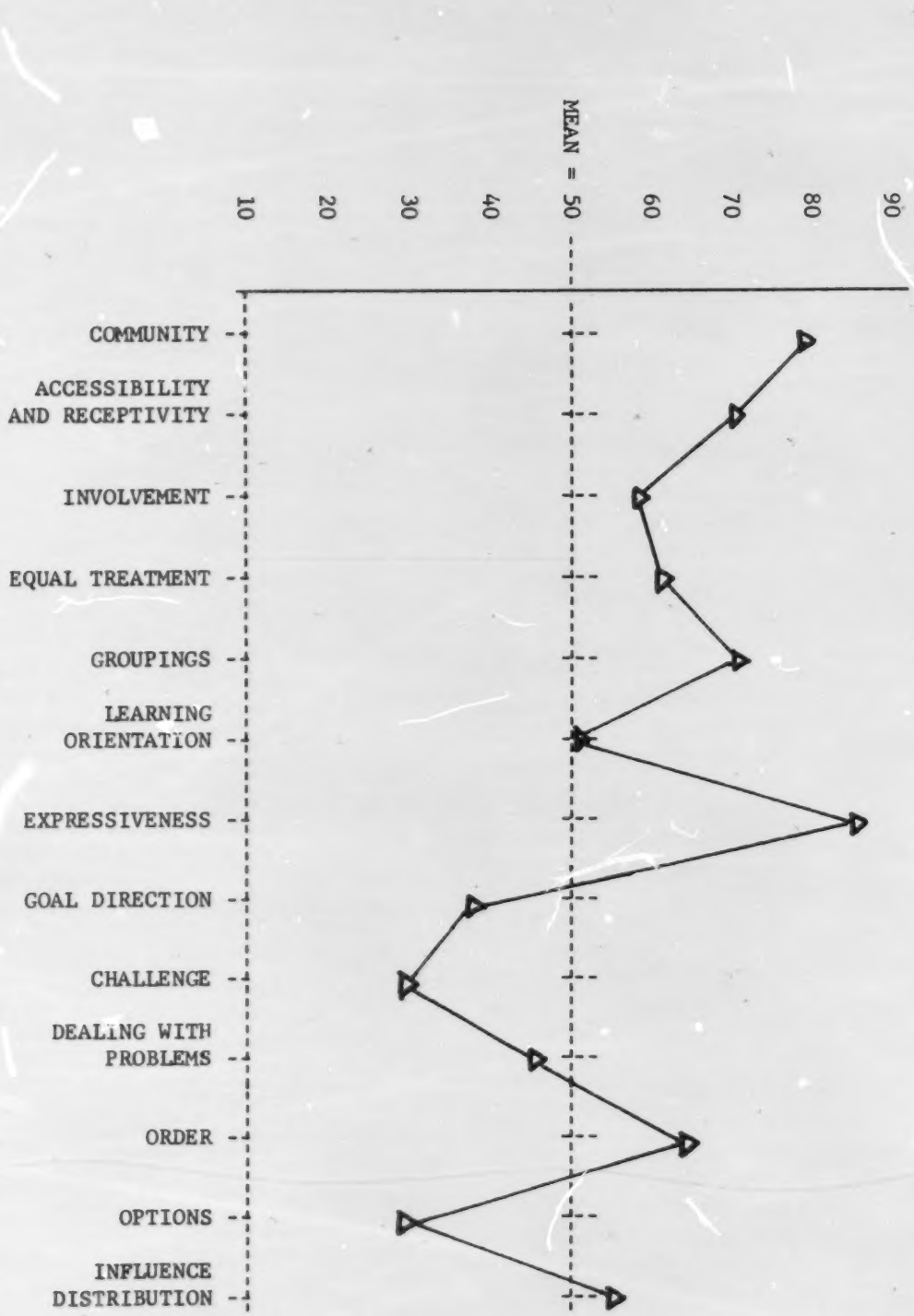

FIGURE 2: Sample Profile of School Climate for Students, Rated by Students

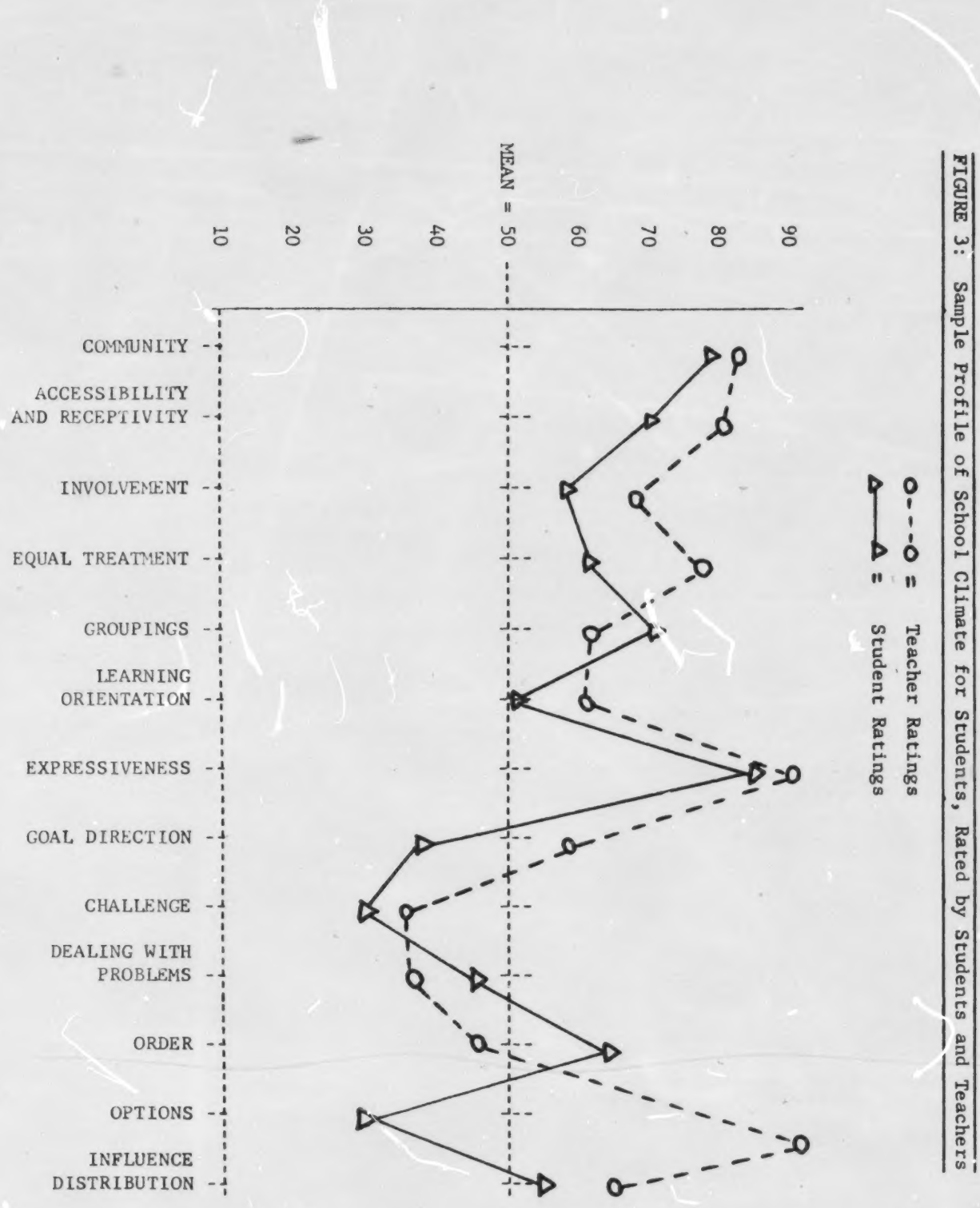

FIGURE 3: Sample Profile of School Climate for Students, Rated by Students and Teachers

Once you have finished displaying the questionnaire responses, you face the challenging task of interpretation. The team has the double task of satisfying itself that its interpretation is just and accurate, and reinterpreting the results to the school community.

No school has completed that full cycle of interpretation. In the Spring of 1977, three school teams did take a thorough look at their questionnaire results, however. So we can give you some hints about the reactions of those teams, and tell you what they intend to do as a result of what they found out.

1. Expectations. One team, in an affluent suburb with a high school that is generally considered to be one of the best in the state, was surprised to find its overall rating quite low - well below the mean of the 24 high schools in last year's study. They gradually came to understand that the school climate measure is not "objective". It is an index of feelings and perceptions about a school. And those feelings are deeply colored by expectations. In this case, the expectations of members of this school community are very high. They have high standards for themselves about lots of things - academic achievement, athletic prowess, and school climate. When they responded to the climate questionnaire, they were responding in relation to their highly demanding expectations, saying again and again, "We can do a lot better."

2. Comparing. Because of the important factor of expectations, comparisons between schools on school climate ratings can be misleading. For example, the suburban high school mentioned above came in well below an urban high school in overall climate rating; an "objective" observer might have disagreed and rated the city school lower than the suburban

one. The difference was expectations: the city school members had lower expectations and, therefore, rated their school higher.

Other comparisons are fruitful. One important set already mentioned are the comparisons of the responses of the several groups; administrators usually tend to rate the climate highest, and students lowest. In your school, this may or may not be true. If there are large discrepancies between groups, that fact alone will provide important data for planning imporvements.

In the 1976-77 study, each school had a distinctive profile. In one city high school, for example, the students rated CHALLENGE much higher than LEARNING ORIENTATION. This difference generated lengthy discussions about the students' perceptions of the "seriousness" of the school, and whether challenge wasn't just grubbing for marks on the part of a few students.

The team in another, suburban, high school was shocked by its school's low rating on GROUPINGS, which was about twelve points below that school's overall average rating. That team turned to the seven items that made up the variable, and discussed each item, and its implications. With adequate time, the team could have actually analyzed the responses to each GROUPINGS item, and could have initiated its own, more detailed investigations into the issues surrounding grouping in the school.

3. Limitations. The trick in interpreting the results of this kind of survey is to take them with several grains of salt. One obvious limitation is the actual content of the items themselves. The items were developed by a group that included students, teachers, administrators, and survey questionnaire experts. But they are not perfect. Among other things, they cannot reflect the special and unique features of your individual school. For that

reason, it's important to look carefully at the items that make up each variable.

The survey is only a survey. That is to say, it has some virtues as a method of collecting opinions. But its biggest limitation is that it has no place for the person who takes it to show the nuances, the context, the complexities of his or her response. That is why we recommend that a team undertake its own investigations, by interviewing and observing members of the school community.

4. Arriving at Conclusions

One school that participated in the 1976-77 study was rated low in CHALLENGE and OPTIONS. The team studied the items used to measure those variables. They were initially puzzled by the low rating for options. After discussing several possible explanations, the team concluded that the school in fact offered many options to students, but that many students were uninformed of them. They therefore decided to make extra efforts to inform students of the school's options in the following year.

This example underscores that the school climate questionnaires used here measure perceptions, and reflect expectations, which may or may not correspond to the reality of the situation. However, people act according to their perceptions and expectations. If a school offers options that students are unaware of, many students would not benefit from those options.

Several possible explanations for the low rating on challenge were discussed, including low teacher expectations of the students' abilities, course emphasis on rote learning, and lack of student motivation. Without knowing the school well, almost any explanation is plausible. The team concluded, however, that because of the high absentee rate, teachers had to

repeat things daily for those absent on the previous days. For most students, the regular attendees, such repetition left them bored and unchallenged. After arriving at this interpretation, the team suggested that absentees make up their work outside of class time.

But these "conclusions" are really only the beginning of real solutions. Many of us are all too quick to jump to solutions without really looking at the problems. In this school, we encouraged the team to try out their suggestions, but to monitor carefully the results, and be ready to admit that they were dealing with symptoms, which only masked the real problems.

5. Collecting Further Information. Every team will want to collect information that goes beyond the information that the questionnaire results provide. Some teams will find it useful to develop new questionnaire items on variables that are particularly problematic, or on altogether new variables.

Most teams should plan to supplement questionnairing with interviewing or observing. An interview can give a wealth of explanatory information that simply can't be crammed onto a multiple-choice questionnaire. We suggest that the interviews be conducted quite formally, and that the questions be very carefully thought out. Otherwise, they run the risk of producing a lot of new and non-comparable information from each interviewee.

Some teams will also want to use other techniques to gather information. Issues like EQUAL TREATMENT or OPTIONS, for example, lend themselves to such techniques as counting detentions, or course offerings. Others might require direct observation.

Limited space prevents us from offering specific advice in this handbook on these other methods of collecting information. But we urge that they be considered by each team. Some especially useful resource booklets on surveying, interviewing, and participant observation are available at very nominal cost from: The Institute for Responsive Education, Boston University, (telephone 353-3308).

STEP 7: Develop a School Climate Improvement Plan

1. Inform the school community of the survey results, and the efforts of the school climate team to develop improvement plans.
2. Brainstorm alternative ways of reinforcing highly rated climate factors, and improving the less favorably rated factors.
3. Decide on which alternatives to follow, based on the team's estimate of its relative chances of success.
4. Develop a written plan, in draft, that briefly describes the school climate improvement goals and action steps.
5. Revise the draft plan based on reactions and suggestions of school community members in open meetings to discuss the plan.

By now, the school team should be in agreement about climate areas in your school that are rated highly, moderately, or poorly. Your team should also be in agreement about factors that contribute to those climate ratings. The next task is to brainstorm ideas for reinforcing the positive features of your school's climate, and improving the less positive features.

Teams tend naturally to be concerned only with improving climate areas that receive the lowest ratings, and to neglect the moderately and highly rated areas. One simple way of reinforcing the more positively rated areas, however, is periodically to inform the school community of the good job it is doing in these areas. This should be done in meetings and school newspaper or newsletter articles while the school team is discussing alternative ways of improving the areas rated least favorably, which can also be reported to the school community. Done forthrightly, such an effort should help to prepare school community members to accept the team's improvement plan when it is presented to them.

As the team begins to develop improvement ideas, it may wish to use brainstorming as a technique that encourages maximum participation by letting everyone explain his ideas completely before evaluating those ideas. Premature

evaluation might silence some team members who have the germs of good ideas. The trick is to avoid excessive competition for whose idea will be accepted by the team -- excessive to the point where the competition becomes more important than identifying the best ideas. When your team comes to evaluate the ideas generated, judge them in terms of probable success in contributing to improved school climate.

Prepare a brief (two to three pages) statement of the goals and action steps of your plan, to be used in open meetings with members of your school community. Copies of this statement can be distributed in your school, and open meetings can be held to discuss the plan. Members of the school climate team can lead these discussions, accepting and recording reactions and suggestions, and further explaining the rationale behind the plan. In conducting these meetings, team members should avoid being too defensive in the face of harsh criticism, or the possible temptation to launch a hard sell on the plan.

After the open meetings, the team should discuss all the reactions and suggestions gained, and revise the plan, where it feels that revision is justifiable. The revised plan should be written and presented to the established school groups for approval and support -- at a minimum, the student and teacher associations, and the school administration.

STEP 8: Implement the School Climate Improvement Plan

1. Determine specific action steps.
2. Assign persons to tasks.
3. Establish work deadlines.
4. Determine lines of responsibility.
5. Develop a plan for reporting and monitoring progress.

Improvement plans can be as elaborate or as simple as the team feels is suitable to its manner of working and to the complexity of the improvements it is trying to promote. But, elaborate or simple, it must be specific about people and times. Complete the chart shown below to help organize the improvement plan.

Improvements Selected	Person Responsible	Report to Whom on What Date	Task to be Completed by	Task Actually Completed by
1.				
2.				

1. What?

This comes first, of course. It is a list of the improvements selected.

2. Who?

The team should look carefully at the skills and energy of its own members first. It may want to add members who possess special implementation skills like handling conflict in groups. Some original members may want to drop off the team. In any event the team will need to look

carefully throughout the school community for individuals who can help it to implement the improvements selected. It is essential at this stage to assign specific people specific improvements. It is also essential to provide adequate time for people who were not part of the original team to become familiar with the goals, personnel, and style of the core team.

3. When?

Now comes the first major test of commitment to the team's plan. If team members resist specific work deadlines, the team should very carefully consider the reasons for resistance. Unless the team is fully committed to the plan it cannot expect others to become involved and committed.

4. Who will be responsible to whom?

First, within the team: is the leader of the team the person responsible for checking on the progress of individual members? Or is some other member appointed to fill that function? Or does the group divide into small sub-groups for specific tasks, each with a task leader? Second, outside the team: when does the team report to the school community or to the individual or group that originally set it in motion?

5. Reporting

How will the team report its progress - internally and externally? Some suggestions include: a regularly scheduled show-and-tell for the whole team; a wall-chart checklist; frequent progress checks with the team's leader or task group leaders; a written report to the team leader.

The form the reporting takes is less important than its regularity and thoroughness. When the team is involved in other school affairs, every meeting will be a major effort, and checking progress may become a sore subject. But if reporting is not regular and subject to hard-headed questioning, the team will not improve its own performance and/or enlist the support of the larger community.

STEP 9: Evaluate the Impact on School Climate

1. Evaluate the impact the improvement plan is having on school climate.
2. Cycle back to Step 1.

Whether your school climate improves as a result of implementing your team's plan can be determined in several ways. One way is to readminister the same questionnaires to the same people who completed them in Step 5, six to twelve months after the improvement plan has been initiated (Step 8). By comparing the two sets of ratings, changes in people's perceptions can be gauged. This can be done by simple inspection, or by statistical analyses of the results, if this resource is available to your team. School climate questionnaire readministration is the more precise way of gauging impact if your improvement plan is based on the variables measured by the questionnaire.

If your plan is based more on refinements of school climate gained through interviews and observations, it would be better to evaluate the impact of your improvement plan by a new round of interviews and observations. If your plan included the improvement of daily student attendance to improve the level of challenge presented to students, attendance trends would be charted along with

some measure of the levels of student challenge. The point is to tailor evaluation to the specific goals of the improvement.

If the school climate team and the school community are satisfied with the improvements made in school climate, the effort might be halted for a year or two. Once such an effort is abandoned, however, it is easily forgotten. The team may consider cycling back to Step 1, and to make the assessment and improvement of school climate a continuous school process. Nothing remains static, especially in organizations like schools with a substantial turnover in school members. Consistent with this turnover, it is recommended that a new school climate team be formed to bring a fresh look and new energy to the considerable tasks involved.

APPENDIX A

Negatively Stated Items for Reversed Polarization when Scoring

A. Student Questionnaire Negative Items

4	14	24	35	44	54	69	84	93	108
6	16	26	37	45	61	73	85	95	
8	18	29	38	48	65	78	87	98	
9	20	31	40	49	67	80	89	102	
12	22	33	43	50	68	82	92	105	

B. Teacher Questionnaire Negative Items

2	16	30	45	58	70	82	98	111	124	132
5	20	35	48	62	74	83	101	114	125	134
8	23	39	53	64	75	88	105	116	127	135
11	26	42	54	67	77	90	106	118	129	
12	27	44	56	69	80	94	108	119	131	

APPENDIX B

Item-to-Variable Assignments for the Student and Teacher Questionnaire

	VARIABLE	STUDENT ITEMS*	TEACHER ITEMS**
1.	COMMUNITY	1, 5, 27, 40, 53, 66, 78	1, 14, 27, 40, 53, 66, 78
2.	ACCESSIBILITY AND RECEPTIVITY	2, 15, 28, 41, 54, 67, 79	2, 15, 28, 41, 54, 67, 79
3.	INVOLVEMENT	3, 16, 29, 42, 55, 68, 80	3, 16, 29, 42, 55, 68, 80
4.	EQUAL TREATMENT	17, 30, 43, 56, 69, 81, 82	4, 17, 30, 43, 56, 69, 81
5.	GROUPINGS	4, 14, 18, 31, 35, 44, 57	5, 18, 31, 44, 57, 70, 82
6.	LEARNING ORIENTATION	11, 19, 32, 45, 58, 70, 71	6, 19, 32, 45, 58, 71, 83
7.	EXPRESSIVENESS	7, 20, 33, 46, 59, 71, 83	7, 20, 33, 46, 59, 72, 84
8.	GOAL DIRECTION	8, 21, 34, 47, 60, 72, 84	8, 21, 34, 47, 60, 73, 85
9.	CHALLENGE	9, 22, 48, 61, 73, 85, 90	9, 22, 35, 48, 61, 86, 91
10.	DEALING WITH PROBLEMS	6, 10, 24, 36, 49, 62, 74	10, 23, 36, 49, 62, 74, 87
11.	ORDER	23, 37, 50, 63, 75, 86, 88	11, 24, 37, 50, 63, 75, 88
12.	OPTIONS	12, 25, 38, 51, 64, 76, 89	12, 25, 38, 51, 64, 76, 90
13.	INFLUENCE DISTRIBUTION	13, 26, 39, 52, 65, 77, 87	13, 26, 39, 52, 65, 77, 89

* Pages 48-54 of the 1976-77 School Climate Study Report
** Pages 59-65 of the 1976-77 School Climate Study Report

APPENDIX C

Mean and Standard Deviation Values from 1976-77 School Climate Study for Use in Normalizing Individual School Ratings

VARIABLE	SCHOOL CLIMATE FOR STUDENTS		SCHOOL CLIMATE FOR TEACHERS	
	Mean	Standard Deviation	Mean	Standard Deviation
1. COMMUNITY	18.68	1.00	18.41	1.35
2. ACCESSIBILITY AND RECEPTIVITY	18.67	0.91	19.37	1.66
3. INVOLVEMENT	16.40	1.06	18.03	1.35
4. EQUAL TREATMENT	17.82	0.87	16.50	2.03
5. GROUPINGS	17.69	1.02	17.49	1.33
6. LEARNING ORIENTATION	17.26	1.17	18.65	1.38
7. EXPRESSIVENESS	18.40	0.90	19.06	1.81
8. GOAL DIRECTION	18.75	1.02	19.25	1.39
9. CHALLENGE	17.79	0.62	18.80	1.45
10. DEALING WITH PROBLEMS	18.50	0.75	18.55	1.78
11. ORDER	18.33	1.09	18.66	1.63
12. OPTIONS	20.40	1.31	18.33	1.15
13. INFLUENCE DISTRIBUTION	16.32	1.14	17.07	2.49

WON'T YOU PLEASE HELP US PRODUCE BETTER REPORTS

by completing this reader survey form and dropping it in the mail

NAME_____ Position/Occupation_____

Address_____ City/Town_____

I have read the report on_____
(Title of Report)

I found the contents of the report (circle one number)

1	2	3	4	5
Extremely Interesting				Extremely Uninteresting

I found the writing in the report (circle one number)

1	2	3	4	5
Excellent				Poor

I found the findings, results, and/or recommendations in the report (circle one number)

1	2	3	4	5
Extremely Useful				Extremely Unuseful

I would suggest the following improvements in future reports

_____

_____

I would suggest the following topics or areas for future assessment reports

_____

_____

Place
Stamp

Bureau of Research and Assessment
Department of Education
31 St. James Avenue -- 6th Floor
Boston, Massachusetts 02116

STATEWIDE ASSESSMENT ADVISORY COMMITTEE

Abasciano, Catherine
Andelman, Fred
Arsenault, Blair
Biggy, M. Virginia
Boylan, Terrance
Buckley, James
Buss, Donald
Carlson, Patricia
Coelho, Robert
Crane, Dorothy
Decher, William
Donohue, Howard
Follini, Gertrude
Fox, Robert
Hadalski, Joanne
Heath, Robert
Leeds, Clarence
Lindberg, Charles
Mack, John
McGrath, Jane
Nyberg, Beatrice
Rainha, Manual
Regan, Robert
Sarabia, Horace
Slocum, Mary
Spaulding, Robin
Storms, Carl
Swillo, Edward
Trask, Corridon F.
Vermette, Mary
Vlahos, George
Wescott, Harry
Yardumain, Virginia

CLIMATE STUDY AND DEVELOPMENT PANEL

Andelman, Fred
Astrein, Bruce
Buckley, James
Chicklis, Marianne
Coelho, Robert
McGrath, Jane
Nyberg, Beatrice
Tarbox, Brian
Weckstein, Paul